Statement of Considerations

REQUEST BY MONSANTO ENVIRO-CHEM SYSTEMS, INC., FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS IN SUBJECT INVENTIONS MADE IN THE COURSE OF OR UNDER DEPARTMENT OF ENERGY CONTRACT NO. DE-AC05-960R22459; DOE WAIVER DOCKET W(A)-96-007 [ORO-625]

Monsanto Enviro-Chem Systems, Inc. (Enviro-Chem) has made a timely request for an advance waiver to worldwide rights in Subject Inventions made in the course of or under Department of Energy (DOE) Contract No. DE-AC05-960R22459. The request includes inventions made under subcontracts with the Monsanto Company (Monsanto), the General Electric Company (GE) and E.I. duPont de Nemours and Company (duPont). The scope of the work calls for the development and demonstration of the use of electrok netics for removing chlor nated hydrocarbons in low permeable soils. The work is sponsored by the Office of Environmental Management.

The dollar amount of the contract is \$2,435,251 with Enviro-Chem cost sharing \$635,251, 26% of the contract.

Enviro-Chem, the prime contractor, is petitioning for waiver of patent rights to inventions made by Enviro-Chem and three primary subcontractors; GE, duPont, and Monsanto, the parent company of Enviro-Chem. The extension of this waiver petition to the subcontractors is reasonable since they are working under an agreement "Agreement for a Joint Research and Development Program for the Advancement of Integrated In Situ Treatment Technologies" to perform the statement of work of this contract. Enviro-Chem has submitted a copy of the agreement and letters from the subcontractors approving of the contractor making the waiver request on their behalf. The waiver petition also establishes the technical and commercial experience of the subcontractors.

Monsanto has a history of investing its own resources to develop, test, manufacture and introduce technology for emission reduction and environmental restoration. Its researchers have expertise in chemistry, biotechnology, micro-biology, engineering, electro-chemistry, and other skills that can be brought to bear on environmental problems. For example, Monsanto developed

technology referred to as Lasagnatm for in situ remediation and has entered into this agreement to demonstrate the technology and establish its commercial potential. A field experiment was conducted for four months at the Paducah Gaseous Diffusion Plant resulting in a successful scale up to a 15' x 10' x 15' deep region that was consistent with laboratory and pilot experiments. Patents covering the inventions developed under these programs

In addition to the experience of Monsanto, GE and duPont are recognized throughout the world for their research capabilities and environmentally directed efforts. Dupont has a successful remediation commercial business and GE, along with duPont, was involved with the Lasagnatm remediation programs mentioned above. Together these companies possess technical competencies to address complex remediation problems presented by the work to be done under this contract and develop the technology to commercialization.

Also, the companies are well positioned to contribute substantially to commercialization of the inventions made under the contract. Monsanto is a leader in the industry for waste remediation and its subsidiary, Enviro-Chem, has commercialized various commercial products, the best known being the Brink s Mist Eliminator and, most recently, several systems for air pollution and odor control for municipal and industrial applications.

All the companies have histories of research and development leading to commercialization of developed environmental technologies. They are committing resources previously used in those activities, such as personnel, equipment, and expertise, to develop the technology under this contract. With respect to the Lasagnatm technology, Monsanto has spent about \$1.5 million from 1993 through 1995.

The contract has been executed and is proceeding with the standard DOE long form patent clause. If the requested waiver is approved, a patent rights clause embodying the standard DOE waiver terms and conditions, approved by Enviro-Chem and its subcontractors, including march-in rights, the granting of licenses to background patents necessary for practicing subject inventions, retention by the government of a license, preference

for U.S. industry, and U.S. Competitiveness clauses will be added by a no-cost modification to the contract. The advance patent waiver will also contain a paragraph that limits the ability of Enviro-Chem and its subcontractors to alienate waived rights. Specifically, they shall not transfer rights in any invention without prior approval of DOE. Also, should there be a change in ownership of Enviro-Chem or its subcontractors, rights in inventions will be suspended until approval by DOE of the entity obtaining controlling interest having the waiver.

Enviro-Chem agrees that any product, process or service used or sold by Enviro-Chem or its affiliates embodying subject inventions must be manufactured, practiced or provided substantially in the United States, and further, any license or other transfer in rights of a subject invention to third parties must be approved by DOE prior to any such transfer.

Granting of the waiver should have little effect on competition since there are several technology options, this being one of many previously or yet-to-be developed in the marketplace, therefore there should not be undue market concentration of Enviro-Chem products.

Grant of the requested waiver should serve as encouragement to other DOE contractors that significant cost sharing will be recognized as an acceptable consideration for granting greater rights in Subject Inventions.

In view of the acceptable level of cost sharing by Enviro-Chem and the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver for worldwide rights be granted.

Katherine Lovingood Senior Patent Attorney Based on the foregoing Statement of Considerations and the representations in the attached Waiver Petition, it is determined that the interest of the United States and the general public will best be served by a waiver of U.S. and foreign patent rights, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the cost-shared contract where, through such a modification or extension, the purpose, scope or cost of the contract has been substantially altered.

CONCURRENCE:

C. W. Frank

Deputy Assistant Secretary for Science and Technology,
Office of Environmental
Management

Date:

12/18/96

APPROVAL:

Paul A. Gottlieb
Assistant General Counsel for
Technology Transfer and
Intellectual Property

Date: 12-19-96

(n) Limitation in Alienation of Waived Rights

Except for the license reserved to the Contractor in (c) (1), the Contractor agrees that any alienation of rights in waived subject inventions by assignment, license or otherwise is subject to written approval of the Contracting Officer; and further that in the event a controlling interest is to be acquired by a foreign entity in the Contractor or to any assignee or licensee of a waived invention, then in that case any rights in the waived invention to be acquired by the foreign entity will be subject to written approval of the Contracting Officer.

(o) U.S. Competitiveness

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The Contractor agrees that any product, process or service embodying or using any waived invention or produced through the use of any waived invention will be manufactured, practiced or provided substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so.